

CENTER PIVOT EVALUATION

Owner _____ District _____ County _____
Legal description _____ Date _____ By _____
Soil series - mapped _____ Actual _____ Land slope _____ (Abney)
Type crop (s) _____

HARDWARE INVENTORY:

Brand name and model _____ No. towers _____
Type tower drive _____ Nozzle: Impact or pray

FIELD DATA INVENTORY:

Wind: Speed _____ Direction (from) _____ Air temp _____
Line direction from center to outer tower _____ Moving (clockwise) _____
Humidity: Dry Moderate High System capacity _____ (d)
Operating pressure at pivot _____ psi at pump _____ psi at end tower _____ psi
(If at pump record: Pipe type _____ length _____ diameter _____)
Distance from center to: End tower _____ (a) feet Wetted edge _____ (c) feet
End tower speed _____ (b) feet/hour
Design application (if known) _____ inches

PRECIPITATION DATA:

EVALUATION:

- A. Circumference of end tower $(6.283 \times a) =$ _____ (A) feet
- B. Hours per revolution $\frac{(A)}{(b)} =$ _____ (B) hours
- C. Area irrigated $\frac{(c^2 \times 3.1416)}{(43560)} =$ _____ (C) acres
- D. Gross application $\frac{(B \times d)}{(453 \times C)} =$ _____ (D) inches
- E. Weighted system average $\frac{\Sigma(g)}{\Sigma(e)} =$ _____ c.c. = _____ (E) inches
- F. Weighted 25% low average: (see direction 7)
Sum of 25% low (e) = _____ (h) (approx. $(e) \times 0.25 =$ _____)
Sum of 25% low (e) \times (f) = _____ (i)
 $\frac{(i)}{(h)} =$ _____ c.c. _____ (F) inches
- G. Pattern eff = $\frac{(F) \times 100}{(E)} =$ _____ (G) %
- H. Application eff = $\frac{(E) \times 100}{(D)} =$ _____ (H) %
- I. System eff = $\frac{(G) \times (H)}{100} =$ _____ (I) %

Comments: (stage of growth, runoff, tower rutting, erosion, etc) _____

PRECIPITATION DATA DIRECTIONS

1. Place the cans from the pivot to the outer wetted fringe at 30 foot spacings.
2. Insure placed cans are stable against turning over and are at or slightly above the height of the crop.
3. Cans may be placed 5 feet either direction to avoid wheel tracks or tower bars.
4. If a period of time will elapse prior to reading the catch, place approximately 10 ml (c.c.) of colored kerosene in each can and deduct colored amount from the catch reading.
5. If oil cans are used, divide catch c.c. reading by 200 to get inches.
6. Evaluation Step F., the low 25% (e) may be found by summing each succeeding lowest (f) value's associated (e) and (g) until the approximate 25% total $\Sigma(e)$ value is reached. The sums provide values (h) and (i).

(e) Can No.	(f) Catch c.c.	(g) (e) x (f)	Catch inches	(e) Can No.	(f) Catch c.c.	(g) (e) x (f)	Catch inches	(e) Can No.	(f) Catch c.c.	(g) (e) x (f)	Catch inches
1				21				41			
2				22				42			
3				23				43			
4				24				44			
5				25				45			
6				26				46			
7				27				47			
8				28				48			
9				29				49			
10				30				50			
11				31				51			
12				32				52			
13				33				53			
14				34				54			
15				35				55			
16				36				56			
17				37				57			
18				38				58			
19				39				59			
20				40				60			
TOTALS				TOTALS				TOTALS			

SUM TOTAL $\Sigma(e)$ _____ $\Sigma(g)$ _____